

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) Continuous method for enrichment of reaction mixtures ~~with a concentration of 0.1 w/w % at least consisting of unconverted parent substances, the a target product, and by products by-products, the reaction mixtures comprising a concentration of at least 0.1 w/w %~~ resulting from the catalytic metathesis of cycloalkanediene from mixtures of cyclic aliphatic alkenes and cyclooligomers in a liquid organic reaction media ~~being media, wherein said media is an aliphatic, cyclic aliphatic and or chlorinated hydrocarbons, hydrocarbon,~~ in which the liquid organic reaction media and the unconverted part of parent substances are recycled, for the use as heat transfer medium at a temperature difference of 5 K at least (T1/T2) evaporated and compressed, and finally are fed in condensed state to a mixing vessel for adjusting the concentration ratios of parent substances ~~with regard to the method, covering all measures of the method.~~ substances, said method comprising the steps of:

~~1a. Feeding of low concentrated reaction mixtures with temperature T1 withdrawn continuously from the reactor into a~~

~~single or multiple chambered evaporator.~~

(a) continuously withdrawing a low-concentrated reaction mixture from a reactor and feeding said mixture into a single or multiple chambered evaporator at temperature T1;

~~1b. Sucking off of vapours~~ (b) sucking vapors of the organic reaction medium from the ~~evaporator.~~ evaporator;

~~1c. Compressing of vapours~~ (c) compressing said vapors in a vent compressor by means of ~~feeding of electric energy.~~ electrical energy;

~~1d. Feedback of~~ (d) feeding back ~~said compressed vapours with vapors~~ at temperature T2 into the ~~a~~ heat exchanger of the ~~evaporator.~~ evaporator;

~~1e. Heat~~ (e) performing heat exchange in the evaporator between the low-concentrated reaction mixture ~~of~~ at temperature T1 and the compressed organic reaction medium ~~of~~ at temperature T2 ~~fed back.~~ T2,

~~1f. Continuous feedback of~~ (f) continuously feeding back condensed organic reaction medium from the heat exchanger of the evaporator into a mixing vessel for adjusting the method determined concentration ratios; and concentration ratios with regard to the method.

1g. Continuous withdrawing of the reaction mixture enriched in the reaction medium to a content of 30 w/w % at least from the evaporator consisting of target product, by products, parent substances, and organic reaction medium. (g) continuously withdrawing reaction medium enriched with reaction mixture to a content of at least 30 w/w % from the evaporator, wherein said reaction medium comprises target product, by-products, parent substances and organic reaction medium.

1h. Feeding the enriched reaction mixture into a high grade distillation plant to distil off the residual part of the organic reaction medium and to separate the reaction mixture into target product, by products, and parent substances.

1i. Feedback of condensed organic reaction medium and parent substances to the mixing vessel according to 1f.

2. (currently amended) Method The method according to claim 1 characterised by the fact, that under aliphatic, cyclic aliphatic, and chlorinated hydrocarbons 1, wherein said liquid organic reaction media comprises pentane, hexane, heptane, cyclopentane, cyclohexane, cycloheptane, methylene chloride, chloroform, carbon tetrachloride, and petroleum ether are understood. ether, or a mixture thereof.

3. (currently amended) Method The method according to claim 1

and or claim 2 characterised by the fact, that 2, wherein temperature T1 does not fall more is less than 5 K below of the boiling point of the liquid organic reaction medium.

4. (currently amended) Method The method according to claim 1 to 3 characterised by the fact that or claim 2, wherein the temperature difference between T1 and T2 amounts preferably to is from about 8 to about 12 K.

5. (currently amended) Device to carry out the method according to claim 1 to 4 consisting of A device for the continuous enrichment of a reaction mixture according to the method of claim 1, said device comprising:

5a. (a) a feeding pipe (1) for feeding low-concentrated reaction mixture comprised in a liquid organic reaction medium,

5b. (b) a single or multiple-chambered evaporator (2) including a heat exchanger (6), what in which the liquid organic reaction medium evaporates in and the other target product, by-product, and parent substance components of the reaction mixture (target product, by products, parent substances)—are enriched,

5c. (c) a suction pipe (3) to feed the vapour vapor of the organic reaction medium to the compressor (4),

5d. (d) a compressor (4) to compress the vapour vapor of the

organic reaction medium and to heat it to temperature T2,

5e. (e) a pressure pipe (5) to feed the compressed and heated organic reaction medium to the heat exchanger (6),

5f. (f) a heat exchanger (6) inside the evaporator (2) for transfer of heat between the liquid organic reaction medium as well as the reaction mixture with temperature T1 and the compressed organic reaction medium with temperature T2, and

5g. (g) a pipe (7) to carry the condensed organic reaction medium from heat exchanger (6) to mixing vessel ~~(8)~~, (8).

5h. ~~a pipe (9) to carry the enriched reaction mixture from evaporator (2) to high grade distillation plant (10),~~

5i. ~~a high grade distillation plant (10) for the separation of the enriched reaction mixture into target product, by products, parent substances, and organic reaction medium, and~~

5j. ~~a pipe (11) to carry the liquid organic reaction medium from distillation plant (10) to mixing vessel (8).~~

6. (new) The method of claim 1 further comprising the step of:
(h) feeding the enriched reaction mixture into a high-grade distillation plant to distill off the residual part of the organic reaction medium and to separate the reaction mixture

into target product, by-products, and parent substances.

7. (new) The method of claim 6, further comprising the step of:
(i) feeding back a condensed organic reaction medium and said parent substances to the mixing vessel according to (f).

8. (new) The device of claim 5, further comprising a high-grade distillation plant (10) for the separation of the enriched reaction mixture into target product, by-products, parent substances, and organic reaction medium, and a pipe (9) to carry the enriched reaction mixture from evaporator (2) to the high-grade distillation plant (10).

9. (new) The device of claim 8, further comprising a pipe (11) to carry the liquid organic reaction medium from the distillation plant (10) to the mixing vessel (8).

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AMENDMENT A

ATTORNEY DOCKET NO.: 3968.045

IN THE DRAWINGS:

The attached sheet of drawings is a replacement sheet for Fig. 1, redrafted for clarity.

Attachment: Replacement Sheet
 Annotated Sheet showing changes.